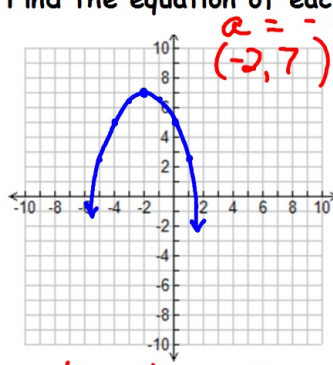
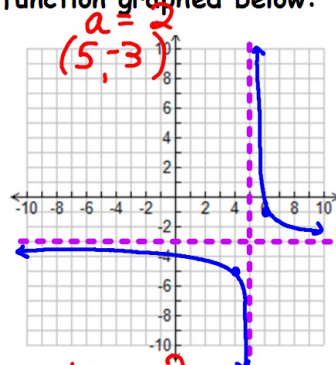


Bellwork: 3/15/13

Find the equation of each function graphed below:



$$y = -\frac{1}{2}(x+2)^2 + 7$$



$$y = \frac{2}{(x-5)-3}$$

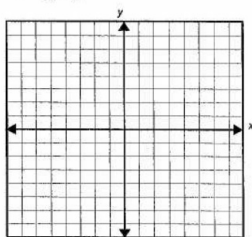
Page 1

<p><u>Absolute Value</u></p> <p>$y = a x-h + k$</p> <p><u>$a = 1$</u></p> <p>over 1 up 1</p> <p>over 2 up 2</p> <p>over 3 up 3</p>	<p><u>Quadratic</u></p> <p>$y = a(x-h)^2 + k$</p> <p><u>$a = 1$</u></p> <p>over 1 up 1</p> <p>over 2 up 4</p> <p>over 3 up 9</p>
<p><u>Cubic</u></p> <p>$y = a(x-h)^3 + k$</p> <p><u>$a = 1$</u></p> <p>right 1 up 1</p> <p>right 2 up 8</p> <p>left 1 down 1</p> <p>left 2 down 8</p>	<p><u>Rational</u></p> <p>$y = \frac{a}{x-h} + k$</p> <p><u>$a = 1$</u></p> <p>dot lines from (h, k)</p> <p>right 1 up 1</p> <p>left 1 down 1</p>

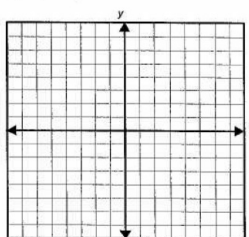
Page 2

Graph each function using transformations (a, h, k)

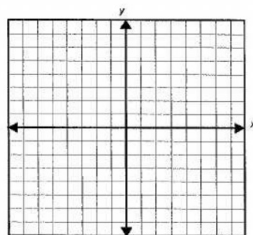
1) $y = \frac{1}{x-3} + 5$



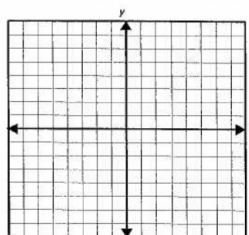
2) $y = |x-7| + 3$



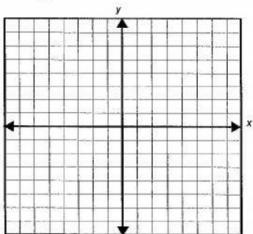
3) $y = 2(x+5)^2 - 4$



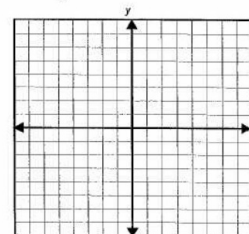
4) $y = \frac{-3}{x+1} - 2$



5) $y = \frac{1}{2}(x-1)^3 + 3$

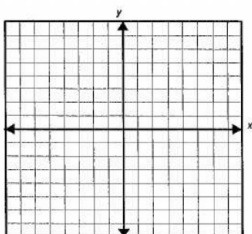


6) $y = -\frac{1}{3}|x+6|$

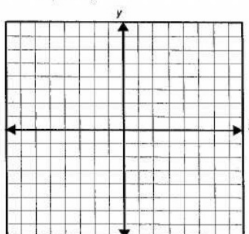


Page 3

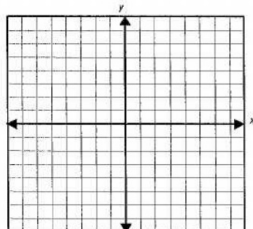
7) $y = -x^2 - 2$



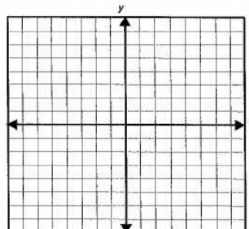
8) $y = \frac{1}{2(x+2)} + 6$



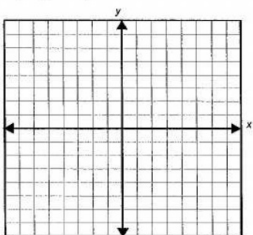
9) $y = -4|x-5|$



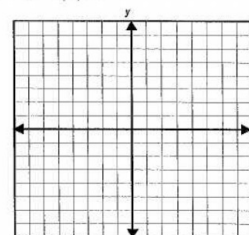
10) $y = -2(x+4)^2 + 1$



11) $y = (x-4)^3$

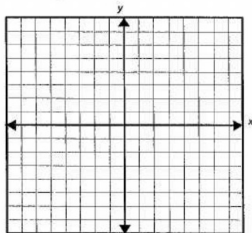


12) $y = 2|x| + 6$

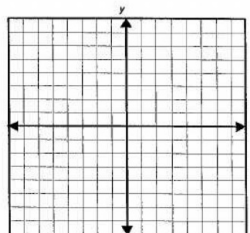


Page 4

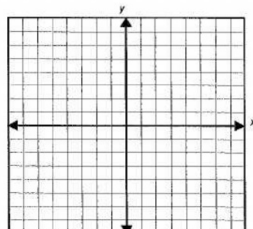
13) $y = -\frac{1}{2}(x-4)^2 + 8$



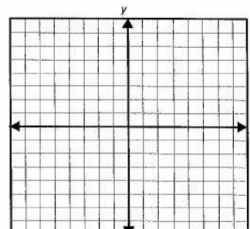
14) $y = 2(x+1)^3 - 1$



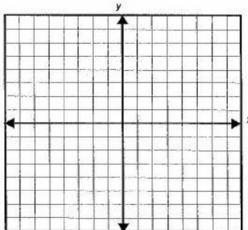
15) $y = \frac{2}{x} - 4$



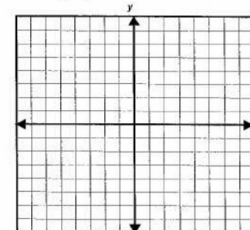
16) $y = \frac{1}{2}(x-5)^3 + 2$



17) $y = -2|x-7| + 4$



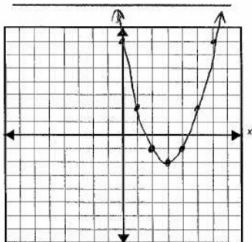
18) $y = \frac{-2}{x-5} - 4$



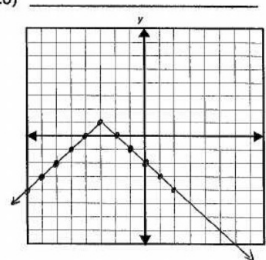
Page 5

Write the equation of each graph below.

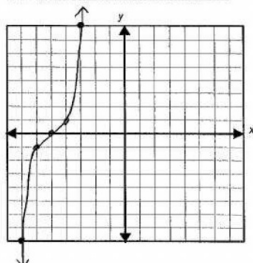
19)



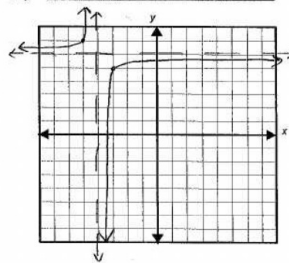
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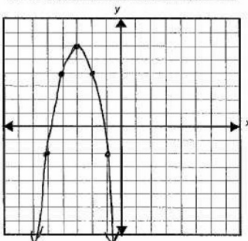
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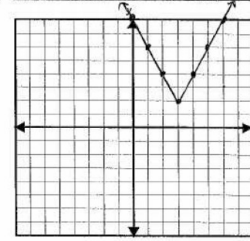
22)



23)

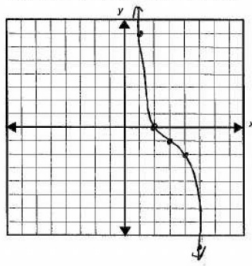


24)

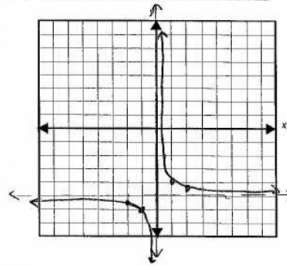


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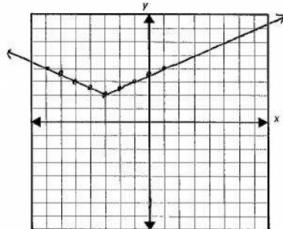
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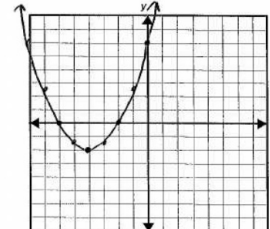
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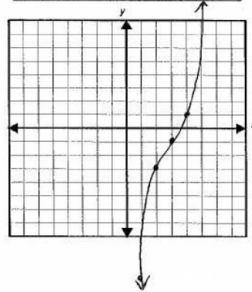
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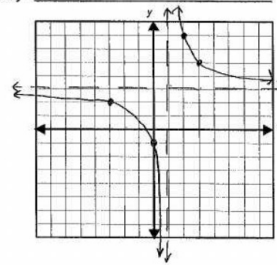
28)



29)

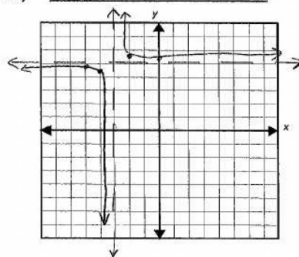


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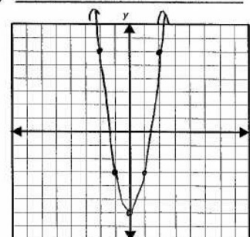


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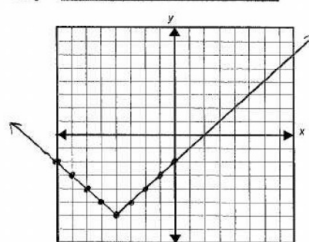
31)



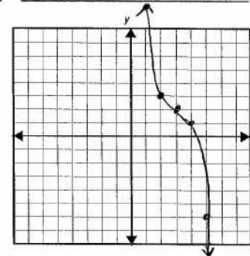
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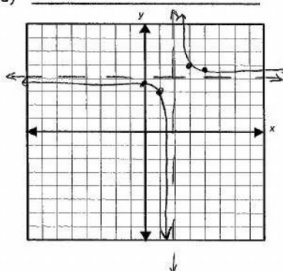
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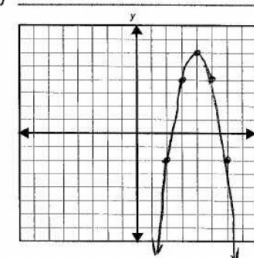
34)



35)



36)



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